

### **AMENDMENTS TO THE CLAIMS**

Please amend the claims as follows:

#### **Listing of Claims:**

1. (Currently amended): An isolated enone reductase having the following physico-chemical properties:

- a) Molecular mass:  $61,300 \pm 5,000$  Da as determined by gel filtration,  
~~(Consisting of one subunit having a molecular mass of~~  
 ~~$45,000 \pm 5,000$  Da),~~
- b) Co-factor: NADPH and NADH,
- c) Substrate specificity: active on  $\alpha$ ,  $\beta$ -unsaturated ketones,
- d) Optimum temperature: 55 - 60°C at pH 7.4,
- e) Optimum pH: 4.5 - 8.5, and
- f) A single subunit having a molecular mass of  $45,000 \pm 5,000$   
Da as determined by SDS-polyacrylamide gel  
electrophoresis.

2. (Currently amended): The An enone reductase according to claim 1, which is derived from a microorganism which is capable of producing the enone reductase having the properties as defined in claim 1.

3. (Currently amended): The An enone reductase according to claim 2, wherein the microorganism is a yeast.

4. (Currently amended): The ~~An~~ enone reductase according to claim 2, wherein the microorganism is *Candida kefyr* (*Candida macedoniensis*) IFO 0960, its functional equivalents, subcultures, mutants or variants.

5. (Currently amended): A process for producing an enone reductase having the following physico-chemical properties:

- a) Molecular mass:  $61,300 \pm 5,000$  Da as determined by gel filtration,  
~~(Consisting of one subunit having a molecular mass of  $45,000 \pm 5,000$  Da),~~
- b) Co-factor: NADPH and NADH,
- c) Substrate specificity: active on  $\alpha$ ,  $\beta$ -unsaturated ketones,
- d) Optimum temperature: 55 - 60°C at pH 7.4,
- e) Optimum pH: 4.5 - 8.5, and
- f) A single subunit having a molecular mass of  $45,000 \pm 5,000$  Da as determined by SDS-polyacrylamide gel electrophoresis,

which process comprises cultivating a microorganism, which is capable of producing the enone reductase having the above properties, in an aqueous nutrient medium under aerobic conditions, disrupting the cells of the microorganism, and isolating and purifying the enone reductase from said extract.

6. (Original): The process according to claim 5, wherein the microorganism is a yeast.

7. (Currently amended): A process for producing levodione from ketoisophorone which process comprises contacting ketoisophorone with

(i) an enone reductase having the following physico-chemical properties:

- a) Molecular mass:  $61,300 \pm 5,000$  Da as determined by gel filtration,  
~~(Consisting of one subunit having a molecular mass of  $45,000 \pm 5,000$  Da),~~
- b) Co-factor: NADPH and NADH,
- c) Substrate specificity: active on  $\alpha$ ,  $\beta$ -unsaturated ketones,
- d) Optimum temperature: 55 - 60°C at pH 7.4,
- e) Optimum pH: 4.5 - 8.5, and
- f) A single subunit having a molecular mass of  $45,000 \pm 5,000$  Da as determined by SDS-polyacrylamide gel electrophoresis,

in the presence of NADH or NADPH; or

(ii) cells or a cell-free extract of a microorganism belonging to the genus *Candida* capable of producing the enzyme as defined in (i),

and isolating the resulting levodione from the reaction mixture.

8. (Original): The process according to claim 7, wherein the microorganism is a yeast.

9. (Previously presented): The process according to claim 7, wherein the reaction is conducted at a pH in the range of from 4.5 to 8.5.

10. (Previously presented): The process according to claim 7, wherein the temperature of the reaction is in the range of from 30 to 60°C.

11. (Previously presented): The process according to claim 8, wherein the reaction is conducted at a pH in the range of from 4.5 to 8.5.

12. (Previously presented): The process according to claim 8, wherein the temperature of the reaction is in the range of from 30 to 60°C.

13. (Previously presented): The process according to claim 9, wherein the temperature of the reaction is in the range of from 30 to 60°C.

14. (Previously presented): The process according to claim 11, wherein the temperature of the reaction is in the range of from 30 to 60°C.

15. (New): The enone reductase according to claim 4, wherein the microorganism is *Candida kefyr* (*Candida macedoniensis*) IFO 0960.

16. (New): The process according to claim 5, wherein the microorganism is *Candida kefyr* (*Candida macedoniensis*) IFO 0960, its functional equivalents, subcultures, mutants or variants.

17. (New): The process according to claim 16, wherein the microorganism is *Candida kefyr* (*Candida macedoniensis*) IFO 0960, its functional equivalents, subcultures, mutants or variants.

18. (New): The process according to claim 7, wherein the microorganism is *Candida kefyr* (*Candida macedoniensis*) IFO 0960, its functional equivalents, subcultures, mutants or variants.

19. (New): The process according to claim 18, wherein the microorganism is *Candida kefyr* (*Candida macedoniensis*) IFO 0960, its functional equivalents, subcultures, mutants or variants.